

REMARKS

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority under 35 U.S.C. § 119(a)-(d) and that the certified copy of the priority document has been received from the International Bureau under PCT Rule 17.2(a).

Claim Objections:

Applicant thanks the Examiner for withdrawing the objection to claims 4-8, 10 and 13-15 under 37 C.F.R. § 1.75(c).

Claim Amendments:

Applicant notes that claims 1, 9, 10, 29 and 30 have been amended to make minor clarifying amendments. Applicant submits that these amendments have been made to merely clarify the claimed invention, and that these amendments were not intended to narrow the scope or spirit of the claims.

Claim Rejections:

Claims 1-33 are all the claims pending in the application, and currently all of the claims stand rejected.

35 U.S.C. § 101 Rejection – Claims 9, 11, 16, 17 and 19-23:

Claims 9, 11, 16, 17 and 19-23 stand rejected under 35 U.S.C. § 101 as being substantial duplicates of claims in a divisional application U.S. Application No. 10/300,032. However, Applicant notes that a Notice of Abandonment has been received in the '032 application, dated December 2, 2003. Therefore, there is no longer copendency between the '032 application and

the present application. Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 101 rejection of the claims.

Obviousness-Type Double-Patenting Rejection – Claims 1-16:

Claims 1-16 stand rejected under the judicially created doctrine of obviousness-type double patenting in view of U.S. Patent No. 6,291,440. Therefore, Applicant is filing concurrently herewith a Terminal Disclaimer and a Submission of Terminal Disclaimer referencing the '440 patent. Therefore, Applicant requests the Examiner reconsider and withdraw the above rejection of claims 1-16.

Obviousness-Type Double-Patenting Rejection – Claims 1-8, 10, 12-15 and 18:

Claims 1-8, 10, 12-15 and 18 stand rejected under the judicially created doctrine of obviousness-type double patenting in view of the '032 application. However, as indicated above the '032 application is now abandoned. As such, Applicant hereby requests the Examiner reconsider and withdraw the above rejection of the claims 1-8, 10, 12-15 and 18.

35 U.S.C. § 101 Rejection – Claims 15, 16 and 31-33:

Claims 15, 16 and 31-33 stand rejected under 35 U.S.C. § 101 as being improper “use” claims. Applicant has amended these claims as shown in the previous section to render these claims “method” claims. Therefore, Applicant submits that these claims are now in proper format, and hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 101 rejection of the above claims.

35 U.S.C. § 103(a) Rejection – Claims 1-33:

Claims 1-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the previously applied Usher reference (claims 1-16 and 17-33), and as being unpatentable over Usher in view of Mioduszewski (claims 8 and 14). In view of the following discussion, Applicant respectfully disagrees.

As an initial matter, Applicant notes that the starting material for the Usher process is dextran (containing aldehyde groups only in the terminal of the molecule) or hydrogenated dextran (where the aldehyde groups of the molecule have been converted to alcohol groups).

In the present application the starting material is dextran.

The first step in the Usher process is oxidation using periodate to transform dextran or hydrogenated dextran to molecules containing additional newly formed aldehyde groups in the intermediate glycosyl groups.

The first step in the present application is a partial hydrogenation, where the terminal aldehyde groups on a fraction of the molecules are converted to alcohol groups.

The second step in the Usher process may be a second oxidation step, whereby all aldehyde groups (optional originally present at the terminus of the molecules as well as the newly formed aldehyde groups in the intermediate glycosyl groups) are converted to carboxylic acid groups. This material is reacted with ferric hydroxide.

Alternatively, the second step in the Usher process is a reaction with cyanide, however this embodiment is less relevant for the present application.

The second step in the present application is an oxidation step whereby all unreacted terminal aldehyde groups present after the partial hydrogenation are converted to carboxylic groups. This material is used in the reaction with ferric hydroxide.

However, the material that ultimately is used in the reaction with ferric hydroxide in the Usher process will be a dextran derivative wherein all molecules have intermediate pairs of carboxylic acid groups and optionally a terminal carboxylic acid group.

In contrast, in the present invention, the material that ultimately is used in the reaction with the ferric hydroxide in the actual application is a dextran derivative, wherein a fraction of the molecules contains one terminal carboxylic group and the remaining fraction of the molecules contains no carboxylic acid groups.

It is, therefore, submitted that the iron dextran products prepared according to the present application is completely different from the products disclosed in Usher and that the teachings in Usher, in no way, would lead the skilled person to the present invention.

Moreover, Mioduszewski merely teaches that addition of citric acid or citrates may confer increased stability to iron containing compounds. However, Mioduszewski does not disclose any teaching or suggestion that, if it were combined with Usher the resultant combination would lead to the present invention.

In support of the above discussion, Applicant submits herewith a signed statement by Professor Klaus Bock, from the Department of Chemistry of the Carlsberg Laboratory, Denmark, which is an internationally recognized research institution. As evidenced by Professor Bock's statement (comparing Usher with the subject matter of the present application, i.e. WO

00/30657), and in view of the corresponding exhibits, "the overall conformation of [the] product [of the present application] will be completely different from the product produced by [Usher]. Professor Bock's Statement, page 2.

In view of the foregoing, Applicant submits that Usher, either individually or in combination with Mioduszewski, fails to teach or suggest each and every feature of the claims 1 and 9 of the present application. Therefore, Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness with respect to these claims, as required under 35 U.S.C. § 103(a). Accordingly, Applicant hereby requests the Examiner reconsider and withdraw the above 35 U.S.C. § 103(a) rejection of claims 1 and 9. Further, as claims 2-8 and 10-33 depend on these claims, Applicant submits that these claims are also allowable, at least by reason of their dependence.

Conclusion:

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.114(c)
Application Number 09/509,681

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Art Unit: 1615

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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